

Wadable Stream Habitat Evaluation

Form 3600-228 (R 5/03)

Page 1 of 5

Instructions: Bold fields must be completed. Record all measurements in metric units.

Station Summary

Stream Name

Unnamed trib to East Twin R. Waterbody ID Code 3000212 Site Mile Station No. Date (MMDDYYYY) 08042008

Starting Location

Wood lot downstream from Cherry Rd. culvert Township Range Section 1/4 - 1/4 1/4

Latitude - Longitude Determination Method Used

Garcia G.P.S.

Datum Used

Start Latitude

Start Longitude

End Latitude

End Longitude

7.5' Quad Map Name

Basin Name

Watershed Name

County

Kewaunee

Water Characteristics

Time (24-hr clock)

Air Temperature (C)

Water Temperature (C)

Conductivity ($\mu\text{S}/\text{cm}$)

Turbidity (NTU)

13.00

80°F

26.82

2.07 mS/cm

> 120 cm

Total Dissolved Solids (mg/l)

Dissolved Oxygen (mg/l)

Dissolved Oxygen % Saturation

pH

2.14

7.66

Flow (m^3/sec)

Water Level (check one - measure distance if Above or Below Normal):

Water Clarity:

(from Flow Data sheet)

☐ Normal

☒ Below: 0.1 (m)

☐ Above: (m)

☒ Clear ☐ Turbid ☐ Stained

0.004835652

Channel and Basin Characteristics

Stream Widths (m)

1.5

1.5

1.8

2.0

2.2

1.4

2.2

1.6

1.2

0.6

Mean Stream Width (m)

1.6

Transect Spacing (m)

9.0

Station Length (m)

102

Channel Condition (check one):

☐ Natural

☒ > 20-year-old Channelization

Percent Channelization

☒ 10- to 20-year-old Channelization

☐ < 10-year-old Channelization

☐ Concrete Channel

Sinuosity

Gradient (m/km)

Stream Order

Basin Area (km^2)

Mean Distance Between (from Map Data Sheet)

Bends (m)

Riffles (m)

(from Map Data sheet)

Total (Sum) Length (m) of All:

Riffles:

Pools:

Runs:

102

Mean Length (m) of Individual:

Riffles:

Pools:

Runs:

102

Photograph Documentation (optional)

Photograph Taken From Middle of Stream

Frame No.

Frame No.

Frame No.

Looking Downstream from Downstream End of Station:

Looking Upstream from Downstream End of Station:

Looking Downstream from Upstream End of Station:

Looking Upstream from Upstream End of Station:

Person(s) Who Collected Habitat Data (Full Names)

Jeff Behncke, Justin Riebe

Comments / Notes

Runs entirely through cropland.

SWIMS ID: 10029041

0.004835652 m^3/s = 0.17 cfs = 0.11 mgd

Wadable Stream Habitat Evaluation

Form 3600-228 (R 5/03)

Page 3 of 5

Map Data		Waterbody ID Code	Site Mile	Station No.	Date (MMDDYYYY)
Stream Name					
Dist. from Start (m)	Stream Feature (Bend, Riffle, Pool, Run, Log Jam, etc.)	Distance Summary			
0	start station @ wood bridge ^{start run}	Distance Between Bends (m) Measured from Center of Bend			
3	T1	Distance Between Riffles (m) Measurements from the Upstream end of one Riffle to the Downstream end of the next Riffle Upstream			
12	T2	Downstream - 1st: _____		Downstream - 1st: _____	
21	T3	1st - 2nd: _____		1st - 2nd: _____	
30	T4	2nd - 3rd: _____		2nd - 3rd: _____	
39	T5	3rd - 4th: _____		3rd - 4th: _____	
48	T6	4th - 5th: _____		4th - 5th: _____	
57	T7	5th - 6th: _____		5th - 6th: _____	
66	T8	6th - 7th: _____		6th - 7th: _____	
75	T9	7th - 8th: _____		7th - 8th: _____	
84	T10	8th - 9th: _____		8th - 9th: _____	
93	T11	9th - 10th: _____		9th - 10th: _____	
98	Middle Bend	10th - 11th: _____		10th - 11th: _____	
102	T12	11th - Upstream: _____		11th - Upstream: _____	
		Sum: _____		Sum: _____	
		Mean: _____		Mean: _____	
		Length (m) of Individual Riffles, Pools and Runs			
		1st Riffle: _____	1st Pool: _____	1st Run: <u>102.0</u>	
		2nd Riffle: _____	2nd Pool: _____	2nd Run: _____	
		3rd Riffle: _____	3rd Pool: _____	3rd Run: _____	
		4th Riffle: _____	4th Pool: _____	4th Run: _____	
		5th Riffle: _____	5th Pool: _____	5th Run: _____	
		6th Riffle: _____	6th Pool: _____	6th Run: _____	
		7th Riffle: _____	7th Pool: _____	7th Run: _____	
		8th Riffle: _____	8th Pool: _____	8th Run: _____	
		9th Riffle: _____	9th Pool: _____	9th Run: _____	
		10th Riffle: _____	10th Pool: _____	10th Run: _____	
		11th Riffle: _____	11th Pool: _____	11th Run: _____	
		Sum: _____	Sum: _____	Sum: <u>102.0</u>	
		Mean: _____	Mean: _____	Mean: <u>102.0</u>	

Draw map of station on back of this sheet (optional)

Wadable Stream Habitat Evaluation

Form 3600-228 (R 5/03)

Page 5 of 5

Transect Data

Stream Name	Waterbody ID Code	Site Mile	Station No.	Date (MMDDYYYY)	Transect No.
-------------	-------------------	-----------	-------------	-----------------	--------------

Distance from Start (m)	Stream Width (m)	Habitat Type:	Bankfull Depth (m) (optional)	Bankfull Width (m) (optional)
3	1.5	<input type="checkbox"/> Riffle <input type="checkbox"/> Pool <input checked="" type="checkbox"/> Run	.33	1.5

Deepest Point	Channel Position (Fifths of Current Stream Width)			
	1/5	2/5	3/5	4/5
Water Depth (m)	.13	.08	.13	.11
Depth of Fines and Water (m)	.46	.42	.31	.29
Embeddedness (nearest 10%) of Course Gravel and Rubble/Cobble	-	-	-	-

Percent (nearest 5%) of Stream Bottom Covered

	Section Total (Must = 100%)			
Bedrock (solid slab)				
Boulder (261 mm - 4.1 m)				
Rubble / Cobble (65 - 260 mm)				
Gravel (2 - 64 mm)				
Sand (0.062 - 1.9 mm)	10	20	20	
Silt (0.004 - 0.061 mm)	70	40	40	80
Clay				
Detritus	20	40	40	20
Other - Specify:				

Percent (nearest 10%) of Stream Bottom Covered

Algae (attached & fila.)	-	-	-	-
Macrophytes	-	-	-	-
Canopy / Shading (circle one)	0	0	0	0

Cover of Adult Emergent Macrophytes (nearest 10%) of transect within 0.5 m upstream or downstream water at least 0.20 m deep

Undercut Banks	Overhanging Vegetation at least 0.20 m overhang	Woody Debris	Other Debris	Boulder	Submerged Macrophytes	Emergent Macrophytes at least 0.20 m deep	Other - Specify:

Bank Erosion: Length of Continuous Bare Soil (nearest 0.01 m) within 1 m of stream	% of Eroded Bank to the crest or within 5 m of stream edge
Left: (m) Right: (m)	Left: (%) Right: (%)

Riparian Land Use: Percent (nearest 10%) of Bank within 5 m of stream edge along transect

Section Total (Must = 100%)							
Cropland	Pasture	Barnyard	Developed	Meadow	Shrubs	Woodland	Wetland
				100			

Riparian Buffer Width: Length (nearest 1.0 m) of Undisturbed Land Uses along transect, within 10 m of stream

Left: >10 (m)	Right: >10 (m)
---------------	----------------

Wadable Stream Habitat Evaluation

Form 3600-228 (R 5/03)

Page 5 of 5

Transect Data

Stream Name _____ Waterbody ID Code _____ Site Mile _____ Station No. _____ Date (MMDDYYYY) _____ Transect No. 2

Distance from Start (m) 12 Stream Width (m) 1.5 Habitat Type: ☐ Riffle ☐ Pool ☒ Run Bankfull Depth (m) (optional) .24 Bankfull Width (m) (optional) 2.0

	Deepest Point	Channel Position (Fifths of Current Stream Width)			
		1/5	2/5	3/5	4/5
Water Depth (m)	<u>.14</u>	<u>.04</u>	<u>.05</u>	<u>.06</u>	<u>.14</u>
Depth of Fines and Water (m)		<u>.27</u>	<u>.34</u>	<u>.34</u>	<u>.34</u>
Embeddedness (nearest 10%) of Course Gravel and Rubble/Cobble		<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>

Percent (nearest 5%) of Stream Bottom Covered

Section Total Must = 100%

Bedrock (solid slab)				
Boulder (261 mm - 4.1 m)				
Rubble / Cobble (65 - 260 mm)				
Gravel (2 - 64 mm)				
Sand (0.062 - 1.9 mm)	<u>5</u>	<u>10</u>	<u>10</u>	<u>20</u>
Silt (0.004 - 0.061 mm)	<u>80</u>	<u>80</u>	<u>80</u>	<u>60</u>
Clay				
Detritus	<u>15</u>	<u>10</u>	<u>10</u>	<u>20</u>
Other - Specify: _____				

Percent (nearest 10%) of Stream Bottom Covered

Algae (attached & fila.)	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Macrophytes	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Canopy / Shading (circle one)	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

Cover for Adult Gamemsh: Length (nearest 0.01 m) of transect within 0.15 m upstream or downstream in water at least 0.20 m in depth

Undercut Banks	Overhanging Vegetation at least 0.20 m overhang	Woody Debris	Other Debris	Boulder	Submerged Macrophytes	Emergent Macrophytes at least 0.20 m deep	Other - Specify:

Bank Erosion: Length of Continuous Bare Soil (nearest 0.01 m) within 1 m of stream

% of Eroded Bank to the crest or within 5 m of stream edge

Left: _____ (m) Right: _____ (m)

Left: _____ (%) Right: _____ (%)

Riparian Land Use: Percent (nearest 10%) of Bank within 5 m of stream edge along transect

Section Total Must = 100%

Cropland	Pasture	Barnyard	Developed	Meadow	Shrubs	Woodland	Wetland	Exposed Rock	Other - Specify:
<u>20</u>				<u>80</u>					

Riparian Buffer Width: Length (nearest 1.0 m) of Undisturbed Land Uses along transect, within 10 m of stream

Left: 210 (m) Right: 210 (m)

Transect Data

Stream Name	Waterbody ID Code	Site Mile	Station No.	Date (MMDDYYYY)	Transect No. 3
-------------	-------------------	-----------	-------------	-----------------	--

Distance from Start (m) 21.0	Stream Width (m) 1.8	Habitat Type: <input type="checkbox"/> Riffle <input type="checkbox"/> Pool <input checked="" type="checkbox"/> Run	Bankfull Depth (m) (optional) .20	Bankfull Width (m) (optional) 2.8
--	--	--	---	---

	Deepest Point	Channel Position (Fifths of Current Stream Width)			
		1/5	2/5	3/5	4/5
Water Depth (m)	.10	.10	.06	.03	.02
Depth of Fines and Water (m)		.31	.37	.35	.35
Embeddedness (nearest 10%) of Course Gravel and Rubble/Cobble		-	-	-	-

Percent (nearest 5%) of Stream Bottom Covered Section Total Must = 100%

Bedrock (solid slab)				
Boulder (261 mm - 4.1 m)				
Rubble / Cobble (65 - 260 mm)				
Gravel (2 - 64 mm)				
Sand (0.062 - 1.9 mm)	30	40	50	30
Silt (0.004 - 0.061 mm)	30	30	50	40
Clay				
Detritus	30	20	20	50
Other - Specify:				

Percent (nearest 10%) of Stream Bottom Covered

Algae (attached & fila.)	-	-	-	-
Macrophytes	-	-	-	-
Canopy / Shading (circle one)	0	0	0	0

Cover of Adult Gametophytes Length (nearest 0.1 m) of transect within 0.5 m upstream or downstream, water at least 0.20 m deep

Undercut Banks	Overhanging Vegetation at least 0.20 m overhang	Woody Debris	Other Debris	Boulder	Submerged Macrophytes	Emergent Macrophytes at least 0.20 m deep	Other - Specify:

Bank Erosion: Length of Continuous Bare Soil (nearest 0.01 m) within 1 m of stream Left: _____ (m) Right: _____ (m)	% of Eroded Bank to the crest or within 5 m of stream edge Left: _____ (%) Right: _____ (%)
--	---

Riparian Land Use: Percent (nearest 10%) of Bank within 5 m of stream edge, along transect Section Total Must = 100%

Cropland	Pasture	Barnyard	Developed	Meadow	Shrubs	Woodland	Wetland	Exposed Rock	Other - Specify:
20				80					

Riparian Buffer Width: Length (nearest 1.0 m) of Undisturbed Land Uses along transect, within 10 m of stream

Left: >10 (m) Right: >10 (m)

Wadable Stream Habitat Evaluation

Form 3600-228 (R 5/03)

Page 5 of 5

Transect Data

Stream Name _____ Waterbody ID Code _____ Site Mile _____ Station No. _____ Date (MMDDYYYY) _____ Transect No. 4

Distance from Start (m) 30.0 Stream Width (m) 2.0 Habitat Type: ☐ Riffle ☐ Pool ☒ Run Bankfull Depth (m) (optional) .28 Bankfull Width (m) (optional) 2.0

	Deepest Point	Channel Position (Fifths of Current Stream Width)			
		1/5	2/5	3/5	4/5
Water Depth (m)	<u>.08</u>	<u>.04</u>	<u>.06</u>	<u>.08</u>	<u>.08</u>
Depth of Fines and Water (m)		<u>.24</u>	<u>.27</u>	<u>.32</u>	<u>.38</u>
Embeddedness (nearest 10%) of Course Gravel and Rubble/Cobble		<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>

Percent (nearest 5%) of Stream Bottom Covered

Section Total Must = 100%

Bedrock (solid slab)				
Boulder (261 mm - 4.1 m)				
Rubble / Cobble (65 - 260 mm)				
Gravel (2 - 64 mm)				
Sand (0.062 - 1.9 mm)	<u>5</u>	<u>50</u>	<u>50</u>	<u>20</u>
Silt (0.004 - 0.061 mm)	<u>80</u>	<u>40</u>	<u>30</u>	<u>20</u>
Clay				
Detritus	<u>15</u>	<u>10</u>	<u>20</u>	<u>60</u>
Other - Specify: _____				

Percent (nearest 10%) of Stream Bottom Covered

Algae (attached & fila.)	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Macrophytes	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Canopy / Shading (circle one)	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

Cover for Adult Gametophyte: Length (nearest 0.1 m) of transect within 0.15 m upstream or downstream in water at least 0.20 m in depth

Undercut Banks	Overhanging Vegetation at least 0.20 m overhang	Woody Debris	Other Debris	Boulder	Submerged Macrophytes	Emergent Macrophytes at least 0.20 m deep	Other - Specify:

Bank Erosion: Length of Continuous Bare Soil (nearest 0.01 m) within 1 m of stream _____ % of Eroded Bank to the crest or within 5 m of stream edge

Left: _____ (m) Right: _____ (m)

Left: _____ (%) Right: _____ (%)

Riparian Land Use: Percent (nearest 10%) of Bank within 5 m of stream edge, along transect

Section Total Must = 100%

Cropland	Pasture	Barnyard	Developed	Meadow	Shrubs	Woodland	Wetland	Exposed Rock	Other - Specify:
<u>30</u>				<u>70</u>					

Riparian Buffer Width: Length (nearest 1.0 m) of Undisturbed Land Uses along transect, within 10 m of stream

Left: >10 (m) Right: >10 (m)

Wadable Stream Habitat Evaluation

Form 3600-228 (R 5/03)

Page 5 of 5

Transect Data

Stream Name	Waterbody ID Code	Site Mile	Station No.	Date (MMDDYYYY)	Transect No. <u>5</u>
-------------	-------------------	-----------	-------------	-----------------	-----------------------

Distance from Start (m) <u>39.0</u>	Stream Width (m) <u>2.2</u>	Habitat Type: <input type="checkbox"/> Riffle <input type="checkbox"/> Pool <input checked="" type="checkbox"/> Run	Bankfull Depth (m) (optional) <u>.27</u>	Bankfull Width (m) (optional) <u>2.2</u>
-------------------------------------	-----------------------------	---	--	--

Deepest Point	Channel Position (Fifths of Current Stream Width)			
	1/5	2/5	3/5	4/5
Water Depth (m) <u>.07</u>	<u>.07</u>	<u>.07</u>	<u>.06</u>	<u>.04</u>
Depth of Fines and Water (m)	<u>.30</u>	<u>.40</u>	<u>.08</u>	<u>.35</u>
Embeddedness (nearest 10%) of Course Gravel and Rubble/Cobble	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>

Percent (nearest 5%) of Stream Bottom Covered

	Section Total Must = 100%			
Bedrock (solid slab)				
Boulder (261 mm - 4.1 m)				
Rubble / Cobble (65 - 260 mm)				
Gravel (2 - 64 mm)				
Sand (0.062 - 1.9 mm)		<u>20</u>	<u>70</u>	<u>50</u>
Silt (0.004 - 0.061 mm)	<u>60</u>	<u>70</u>	<u>30</u>	<u>30</u> 20
Clay				
Detritus	<u>40</u>	<u>10</u>		<u>20</u> 30
Other - Specify:				

Percent (nearest 10%) of Stream Bottom Covered

Algae (attached & fila.)	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Macrophytes	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Canopy / Shading (circle one)	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

Cover for Adult Gametophyte: Length (nearest 0.1 m) of transect within 0.5 m upstream or downstream water at least 0.20 m depth

Undercut Banks	Overhanging Vegetation at least 0.20 m overhang	Woody Debris	Other Debris	Boulder	Submerged Macrophytes	Emergent Macrophytes at least 0.20 m deep	Other - Specify:

Bank Erosion: Length of Continuous Bare Soil (nearest 0.01 m) within 1 m of stream	% of Eroded Bank to the crest or within 5 m of stream edge
Left: <u>-</u> (m) Right: <u>-</u> (m)	Left: <u>-</u> (%) Right: <u>-</u> (%)

Riparian Land Use: Percent (nearest 10%) of Bank within 5 m of stream edge, along transect

Section Total Must = 100%									
Cropland	Pasture	Barnyard	Developed	Meadow	Shrubs	Woodland	Wetland	Exposed Rock	Other - Specify:
<u>30</u>				<u>70</u>					

Riparian Buffer Width: Length (nearest 1.0 m) of Undisturbed Land Uses along transect, within 10 m of stream

Left: <u>>10</u> (m)	Right: <u>>10</u> (m)
-------------------------	--------------------------

Wadable Stream Habitat Evaluation

Form 3600-228 (R 5/03)

Page 5 of 5

Transect Data

Stream Name _____ Waterbody ID Code _____ Site Mile _____ Station No. _____ Date (MMDDYYYY) _____ Transect No. 6

Distance from Start (m) 48.0 Stream Width (m) 1.4 Habitat Type: ☐ Riffle ☐ Pool ☒ Run Bankfull Depth (m) (optional) .30 Bankfull Width (m) (optional) 1.4

	Deepest Point	Channel Position (Fifths of Current Stream Width)			
		1/5	2/5	3/5	4/5
Water Depth (m)	<u>.10</u>	<u>.07</u>	<u>.10</u>	<u>.08</u>	<u>.08</u>
Depth of Fines and Water (m)		<u>.40</u>	<u>.35</u>	<u>.37</u>	<u>.30</u>
Embeddedness (nearest 10%) of Course Gravel and Rubble/Cobble		<u>-</u>	<u>100</u>	<u>100</u>	<u>-</u>

Percent (nearest 5%) of Stream Bottom Covered

	1/5	2/5	3/5	4/5
Bedrock (solid slab)				
Boulder (261 mm - 4.1 m)				
Rubble / Cobble (65 - 260 mm)				
Gravel (2 - 64 mm)		<u>30</u>	<u>10</u>	
Sand (0.062 - 1.9 mm)	<u>5</u>	<u>10</u>	<u>10</u>	
Silt (0.004 - 0.061 mm)	<u>15</u>	<u>30</u>	<u>20</u>	<u>40</u>
Clay				
Detritus	<u>80</u>	<u>30</u>	<u>60</u>	<u>60</u>
Other - Specify: _____				

Percent (nearest 10%) of Stream Bottom Covered

	1/5	2/5	3/5	4/5
Algae (attached & fila.)	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Macrophytes	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Canopy / Shading (circle one)	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

Cover for Adult Gametophyte: Length (nearest 0.01 m) of transect within 0.15 m upstream or downstream in water at least 0.20 m in depth

Undercut Banks	Overhanging Vegetation at least 0.20 m overhang	Woody Debris	Other Debris	Boulder	Submerged Macrophytes	Emergent Macrophytes at least 0.20 m deep	Other - Specify:

Bank Erosion: Length of Continuous Bare Soil (nearest 0.01 m) within 1 m of stream _____ % of Eroded Bank to the crest or within 5 m of stream edge

Left: _____ (m) Right: _____ (m)

Left: _____ (%) Right: _____ (%)

Riparian Land Use: Percent (nearest 10%) of Bank within 5 m of stream edge along transect

Cropland	Pasture	Barnyard	Developed	Meadow	Shrubs	Woodland	Wetland	Exposed Rock	Other - Specify:
<u>30</u>				<u>70</u>					

Riparian Buffer Width: Length (nearest 1.0 m) of Undisturbed Land Uses along transect, within 10 m of stream

Left: >10 (m) Right: >10 (m)

Wadable Stream Habitat Evaluation

Form 3600-228 (R 5/03)

Page 5 of 5

Transect Data

Stream Name	Waterbody ID Code	Site Mile	Station No.	Date (MMDDYYYY)	Transect No.
					7

Distance from Start (m)	Stream Width (m)	Habitat Type:	Bankfull Depth (m) (optional)	Bankfull Width (m) (optional)
57.0	2.2	<input type="checkbox"/> Riffle <input type="checkbox"/> Pool <input checked="" type="checkbox"/> Run	.29	2.4

Deepest Point	Channel Position (Fifths of Current Stream Width)				
	1/5	2/5	3/5	4/5	
Water Depth (m)	.09	.07	.06	.04	.09
Depth of Fines and Water (m)	.45	.25	.23	.28	
Embeddedness (nearest 10%) of Course Gravel and Rubble/Cobble	-	-	-	-	

Percent (nearest 5%) of Stream Bottom Covered

	Section Total Must = 100%			
Bedrock (solid slab)				
Boulder (261 mm - 4.1 m)				
Rubble / Cobble (65 - 260 mm)				
Gravel (2 - 64 mm)				
Sand (0.062 - 1.9 mm)		20	30	30
Silt (0.004 - 0.061 mm)	50	40	30	30
Clay				
Detritus	50	40	40	40
Other - Specify:				

Percent (nearest 10%) of Stream Bottom Covered

Algae (attached & fila.)	-	-	-	-
Macrophytes	-	-	-	-
Canopy / Shading (circle one)	0	0	0	0

Cover for Adult Gametophyte: Length (nearest 0.1 m) of transect within 0.5 m upstream or downstream water at least 0.20 m depth

Undercut Banks	Overhanging Vegetation at least 0.20 m overhang	Woody Debris	Other Debris	Boulder	Submerged Macrophytes	Emergent Macrophytes at least 0.20 m deep	Other - Specify:

Bank Erosion: Length of Continuous Bare Soil (nearest 0.01 m) within 1 m of stream	% of Eroded Bank to the crest or within 5 m of stream edge
Left: (m) Right: (m)	Left: (%) Right: (%)

Riparian Land Use: Percent (nearest 10%) of Bank within 5 m of stream edge along transect

Section Total Must = 100%									
Cropland	Pasture	Barnyard	Developed	Meadow	Shrubs	Woodland	Wetland	Exposed Rock	Other - Specify:
20				80					

Riparian Buffer Width: Length (nearest 1.0 m) of Undisturbed Land Uses along transect, within 10 m of stream

Left: 710 (m)	Right: 210 (m)
---------------	----------------

Wadable Stream Habitat Evaluation

Form 3600-228 (R 5/03)

Page 5 of 5

Transect Data

Stream Name _____ Waterbody ID Code _____ Site Mile _____ Station No. _____ Date (MMDDYYYY) _____ Transect No. 8

Distance from Start (m) 66.0 Stream Width (m) 1.6 Habitat Type: ☐ Riffle ☐ Pool ☒ Run Bankfull Depth (m) (optional) .29 Bankfull Width (m) (optional) 1.8

	Deepest Point	Channel Position (Fifths of Current Stream Width)			
		1/5	2/5	3/5	4/5
Water Depth (m)	<u>.09</u>	<u>.03</u>	<u>.05</u>	<u>.09</u>	<u>.07</u>
Depth of Fines and Water (m)		<u>.30</u>	<u>.20</u>	<u>.40</u>	<u>.32</u>
Embeddedness (nearest 10%) of Course Gravel and Rubble/Cobble		<u>-</u>	<u>-</u>	<u>50</u>	<u>-</u>

Percent (nearest 5%) of Stream Bottom Covered

Section Total Must = 100%

Bedrock (solid slab)				
Boulder (261 mm - 4.1 m)				
Rubble / Cobble (65 - 260 mm)				
Gravel (2 - 64 mm)			<u>20</u>	
Sand (0.062 - 1.9 mm)		<u>40</u>	<u>40</u>	<u>20</u>
Silt (0.004 - 0.061 mm)	<u>80</u>	<u>30</u>	<u>30</u>	<u>50</u>
Clay				
Detritus	<u>20</u>	<u>30</u>	<u>10</u>	<u>30</u>
Other - Specify: _____				

Percent (nearest 10%) of Stream Bottom Covered

Algae (attached & fila.)	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Macrophytes	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Canopy / Shading (circle one)	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

Cover for Adult Gametophyte: Length (nearest 0.01 m) of transect within 0.15 m upstream or downstream in water at least 0.20 m in depth

Undercut Banks	Overhanging Vegetation at least 0.20 m overhang	Woody Debris	Other Debris	Boulder	Submerged Macrophytes	Emergent Macrophytes at least 0.20 m deep	Other - Specify:

Bank Erosion: Length of Continuous Bare Soil (nearest 0.01 m) within 1 m of stream _____ % of Eroded Bank to the crest or within 5 m of stream edge _____

Left: _____ (m) Right: _____ (m)

Left: _____ (%) Right: _____ (%)

Riparian Land Use: Percent (nearest 10%) of Bank within 5 m of stream edge along transect

Section Total Must = 100%

Cropland	Pasture	Barnyard	Developed	Meadow	Shrubs	Woodland	Wetland	Exposed Rock	Other - Specify:
<u>30</u>				<u>70</u>					

Riparian Buffer Width: Length (nearest 1.0 m) of Undisturbed Land Uses along transect, within 10 m of stream

Left: >10 (m) Right: >10 (m)

Wadable Stream Habitat Evaluation

Form 3600-228 (R 5/03)

Page 5 of 5

Transect Data									
Stream Name			Waterbody ID Code		Site Mile	Station No.	Date (MMDDYYYY)		Transect No.
									9
Distance from Start (m)		Stream Width (m)		Habitat Type:		Bankfull Depth (m) (optional)		Bankfull Width (m) (optional)	
75.0		1.2		<input type="checkbox"/> Riffle <input type="checkbox"/> Pool <input checked="" type="checkbox"/> Run		.24		1.2	
		Deepest Point	Channel Position (Fifths of Current Stream Width)						
			1/5	2/5	3/5	4/5			
Water Depth (m)		.14	.08	.13	.14	.09			
Depth of Fines and Water (m)			.15	.14	.15	.17			
Embeddedness (nearest 10%) of Course Gravel and Rubble/Cobble			100	100	80	100			
Percent (nearest 5%) of Stream Bottom Covered									
Section Total Must = 100%									
Bedrock (solid slab)									
Boulder (261 mm - 4.1 m)									
Rubble / Cobble (65 - 260 mm)									
Gravel (2 - 64 mm)			20	50	30	20			
Sand (0.062 - 1.9 mm)			30	30	40	20			
Silt (0.004 - 0.061 mm)			20	10	30	50			
Clay									
Detritus			30	10		10			
Other - Specify:									
Percent (nearest 10%) of Stream Bottom Covered									
Algae (attached & fila.)			-	-	-	-			
Macrophytes			-	-	-	-			
Canopy / Shading (circle one)			0	0	0	0			
Cover for Adult Gamefish: Length (nearest 0.1 m) of transect within 15 m upstream or downstream in water at least 0.20 m in depth									
Undercut Banks	Overhanging Vegetation at least 0.20 m overhang	Woody Debris	Other Debris	Boulder	Submerged Macrophytes	Emergent Macrophytes at least 0.20 m deep	Other - Specify:		
Bank Erosion: Length of Continuous Bare Soil (nearest 0.01 m) within 1 m of stream					% of Eroded Bank to the crest or within 5 m of stream edge				
Left: _____ (m) Right: _____ (m)					Left: _____ (%) Right: _____ (%)				
Riparian Land Use: Percent (nearest 10%) of Bank within 5 m of stream edge, along transect									
Section Total Must = 100%									
Cropland	Pasture	Barnyard	Developed	Meadow	Shrubs	Woodland	Wetland	Exposed Rock	Other - Specify:
30				70					

Riparian Buffer Width: Length (nearest 1.0 m) of Undisturbed Land Uses along transect, within 10 m of stream

Left: >10 (m) Right: >10 (m)

Wadable Stream Habitat Evaluation

Form 3600-228 (R 5/03)

Page 5 of 5

Transect Data									
Stream Name			Waterbody ID Code		Site Mile	Station No.	Date (MMDDYYYY)		Transect No.
									10
Distance from Start (m)		Stream Width (m)		Habitat Type:		Bankfull Depth (m) (optional)		Bankfull Width (m) (optional)	
84.0		0.6		<input type="checkbox"/> Riffle <input type="checkbox"/> Pool <input checked="" type="checkbox"/> Run		.50		0.6	
		Deepest Point		Channel Position (Fifths of Current Stream Width)					
				1/5		2/5		3/5	
Water Depth (m)		.20		.10		.20		.20	
Depth of Fines and Water (m)				.13		.24		.26	
Embeddedness (nearest 10%) of Course Gravel and Rubble/Cobble				100		100		100	
Percent (nearest 5%) of Stream Bottom Covered									
Section Total Must = 100%									
Bedrock (solid slab)									
Boulder (261 mm - 4.1 m)									
Rubble / Cobble (65 - 260 mm)									
Gravel (2 - 64 mm)				40				30	
Sand (0.062 - 1.9 mm)		30		30		20		20	
Silt (0.004 - 0.061 mm)		10		10		10		10	
Clay		40				50		30	
Detritus		20		20		20		10	
Other - Specify:									
Percent (nearest 10%) of Stream Bottom Covered									
Section Total Must = 100%									
Algae (attached & fila.)		-		-		-		-	
Macrophytes		-		-		-		-	
Canopy / Shading (circle one)		0		0		0		0	
Cover for Adult Gametophyte: Length (nearest 0.01 m) of transect within 0-15 m upstream or downstream in water at least 0.20 m in depth									
Undercut Banks	Overhanging Vegetation at least 0.20 m overhang	Woody Debris	Other Debris	Boulder	Submerged Macrophytes	Emergent Macrophytes at least 0.20 m deep	Other - Specify:		
Bank Erosion: Length of Continuous Bare Soil (nearest 0.01 m) within 1 m of stream					% of Eroded Bank to the crest or within 5 m of stream edge				
Left: (m) Right: (m)					Left: (%) Right: (%)				
Riparian Land Use: Percent (nearest 10%) of Bank within 5 m of stream edge along transect									
Section Total Must = 100%									
Cropland	Pasture	Barnyard	Developed	Meadow	Shrubs	Woodland	Wetland	Exposed Rock	Other - Specify:
30				70					

Riparian Buffer Width: Length (nearest 1.0 m) of Undisturbed Land Uses along transect, within 10 m of stream

Left: >10 (m) Right: >10 (m)

Transect Data						
Stream Name		Waterbody ID Code		Site Mile	Station No.	Date (MMDDYYYY)
Distance from Start (m)	Stream Width (m)	Habitat Type:		Bankfull Depth (m) (optional)	Transect No.	
9300	1.4	<input type="checkbox"/> Riffle <input type="checkbox"/> Pool <input checked="" type="checkbox"/> Run		.32	11	
				Bankfull Width (m) (optional)		
				1.4		

Deepest Point	Channel Position (Fifths of Current Stream Width)			
	1/5	2/5	3/5	4/5
Water Depth (m)	.12	.08	.10	.12
Depth of Fines and Water (m)	.15	.15	.12	.13
Embeddedness (nearest 10%) of Course Gravel and Rubble/Cobble	100	-	100	100

Percent (nearest 5%) of Stream Bottom Covered				
				Section Total Must = 100%

Bedrock (solid slab)				
Boulder (261 mm - 4.1 m)				
Rubble / Cobble (65 - 260 mm)				
Gravel (2 - 64 mm)	30		30	50
Sand (0.062 - 1.9 mm)			20	30
Silt (0.004 - 0.061 mm)	30	20		20
Clay	30	60	50	
Detritus	10	20		
Other - Specify:				

Percent (nearest 10%) of Stream Bottom Covered				

Algae (attached & fila.)	-	-	-	-
Macrophytes	-	-	-	-
Canopy / Shading (circle one)	0	0	0	0

Cover for Adult Gametophyte: Length nearest 0.01 m of transect within 0.15 m of stream or low stream water at least 0.20 m in depth							
---	--	--	--	--	--	--	--

Undercut Banks	Overhanging Vegetation at least 0.20 m overhang	Woody Debris	Other Debris	Boulder	Submerged Macrophytes	Emergent Macrophytes at least 0.20 m deep	Other - Specify:

Bank Erosion: Length of Continuous Bare Soil (nearest 0.01 m) within 1 m of stream	% of Eroded Bank to the crest or within 5 m of stream edge
Left: _____ (m) Right: _____ (m)	Left: _____ (%) Right: _____ (%)

Riparian Land Use: Percent (nearest 10%) of Bank within 5 m of stream edge, along transect									
									Section Total Must = 100%

Cropland	Pasture	Barnyard	Developed	Meadow	Shrubs	Woodland	Wetland	Exposed Rock	Other - Specify:
30				70					

Riparian Buffer Width: Length (nearest 1.0 m) of Undisturbed Land Uses along transect, within 10 m of stream

Left: _____ (m) Right: >10 (m)

Wadable Stream Habitat Evaluation

Form 3600-228 (R 5/03)

Page 5 of 5

Transect Data						
Stream Name	Waterbody ID Code	Site Mile	Station No.	Date (MMDDYYYY)	Transect No.	
					12	

Distance from Start (m)	Stream Width (m)	Habitat Type:	Bankfull Depth (m) (optional)	Bankfull Width (m) (optional)
102.0	1.2	<input type="checkbox"/> Riffle <input type="checkbox"/> Pool <input checked="" type="checkbox"/> Run	.50	1.2

	Deepest Point	Channel Position (Fifths of Current Stream Width)			
		1/5	2/5	3/5	4/5
Water Depth (m)	.10	.10	.08	.04	.03
Depth of Fines and Water (m)		.14	.08	.14	.17
Embeddedness (nearest 10%) of Course Gravel and Rubble/Cobble		100	0	100	-

Percent (nearest 5%) of Stream Bottom Covered Section Total Must = 100%

Bedrock (solid slab)				
Boulder (261 mm - 4.1 m)				
Rubble / Cobble (65 - 260 mm)				
Gravel (2 - 64 mm)	10	40	20	
Sand (0.062 - 1.9 mm)	10	50	50	10
Silt (0.004 - 0.061 mm)	20	10	20	30
Clay	60			
Detritus			10	60
Other - Specify:				

Percent (nearest 10%) of Stream Bottom Covered

Algae (attached & fila.)	-	-	-	-
Macrophytes	-	-	-	-
Canopy / Shading (circle one)	0	2	2	0

Cover for Adult Gamefish: Length (nearest 0.01 m) of transect within 0.15 m upstream or downstream in water at least 0.20 m in depth

Undercut Banks	Overhanging Vegetation at least 0.20 m overhang	Woody Debris	Other Debris	Boulder	Submerged Macrophytes	Emergent Macrophytes at least 0.20 m deep	Other - Specify:

Bank Erosion: Length of Continuous Bare Soil (nearest 0.01 m) within 1 m of stream	% of Eroded Bank to the crest or within 5 m of stream edge
Left: _____ (m) Right: _____ (m)	Left: _____ (%) Right: _____ (%)

Riparian Land Use: Percent (nearest 10%) of Bank within 5 m of stream edge, along transect Section Total Must = 100%

Cropland	Pasture	Barnyard	Developed	Meadow	Shrubs	Woodland	Wetland	Exposed Rock	Other - Specify:
				70					Road
									30

Riparian Buffer Width: Length (nearest 1.0 m) of Undisturbed Land Uses along transect, within 10 m of stream

Left: 3 (m) Right: >10 (m)

to Road